ABSTRACT

The present invention relates to a propylene random copolymer which satisfies the following requirements [1] to [4], and to various useful molded products obtained by molding the propylene random copolymer:

[1] the concentration (Pa, % by mole) of a skeletal constituent derived from propylene (a), and the concentration (Px, % by mole) of a skeletal constituent derived from at least one olefin selected from ethylene (b) and α-olefins having 4 to 20 carbon atoms (c), each of which is contained in the propylene random copolymer, satisfy the following relational expressions (Eq-1) to (Eq-3):

$$85 \leq Pa < 100 \quad \text{(Eq-1)}$$

$$0 < Px \leq 15 \quad \text{(Eq-2)}$$

$$Pa + Px = 100 \quad \text{(Eq-3)};$$

[2] the concentration (Pa, % by mole) of the skeletal constituent derived from propylene (a) contained in the propylene random copolymer, and the melting point (Tm) measured with a differential scanning calorimeter satisfy the following relational expression (Eq-4):

$$135 - 4 \times (100 - Pa) < Tm < 165 - 4 \times (100 - Pa) \quad \text{(Eq-4)};$$

[3] the total amount of 2,1-bonded and 1,3-bonded non-stereoregular fractions is less than or equal to 0.2% by mole; and

[4] the amount of the n-decane (nC_{10})-soluble fraction

is less than or equal to 2.0% by weight.